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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,557	02/09/2004	Won-Kyu Jang	P2075US	8973

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EXAMINER	
HERNANDEZ, NELSON D	
ART UNIT	PAPER NUMBER
2622	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/774,557	JANG ET AL.	
	Examiner	Art Unit	
	Nelson D. Hernandez	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/6/05 & 11/30/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakeyama, US Patent 7,095,437 B1 in view of Schriefer, US 2004/0023520 A1.

Regarding claim 1, Hatakeyama discloses a digital camera (Figs. 1-5) comprising: a camera main body (See figs. 1-4) that obtains data of an object to be photographed by the digital camera; and a storage device (Fig. 5: 44) that receives the data from the camera main body, stores the data, and transmits the stored data directly to a computer main body independent of the camera main body (Col. 1, lines 11-18; col. 3, line 43 – col. 4, line 15; col. 5, line 33 – col. 6, line 53).

Hatakeyama does not explicitly disclose that the storage device is a USB drive.

However, the use of USB drives as a storage device for digital cameras is well known in the art as taught by Schriefer. Schriefer teaches a USB memory device (Fig. 3B: 305) comprising and adapter (Fig. 3B: 215 and fig. 4A: 215) that allows the USB memory device to be rotated in both the Y-Z planes so the USB can be in close proximity to the host device such as a camera (See page 3, ¶ 0030) (Page 2, ¶ 0022-0024; page 3, ¶ 0030).

Therefore, taking the combined teaching Hatakeyama in view of Schriefer as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Hatakeyama by using a USB drive as a storage medium and to have the USB plug is rotatable to be parallel and/or perpendicular to a lengthwise direction of the USB drive. The motivation to do so would have been to use a storage device that can be connected to different processing systems and be easily recognized for it's Plug-and-Play function in order to improve the transfer of image data between the camera and a computer or another external storage device; and to have the USB drive in close proximity to the digital camera as suggested by Schriefer (Page 2, ¶ 0022-0024).

Regarding claim 2, the combined teaching Hatakeyama in view of Schriefer as discussed and analyzed in claim 1 teaches that the camera main body has a USB port at one side (See Hatakeyama, figs. 3-4) thereof and the USB drive has a USB plug at one end portion thereof to be detachably coupled to the USB port (See Schriefer, figs. 3 and 4). Grounds for rejecting claim 1 apply here.

Regarding claims 3 and 4, limitations can be found in claim 1.

3. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakeyama, US Patent 7,095,437 B1 in view of Schriefer, US 2004/0023520 A1 and further in view of Sakamoto, US Patent, 6,373,904 B1.

Regarding claim 5, Hatakeyama discloses a method of delivering power to a storage device (Fig. 5: 44) of a digital camera (Fig. 5) comprising: (a) supplying power

to the storage device (Fig. 6: step S10; Hatakeyama teaches supplying power to the storage device by teaching that if disconnection of the storage device is detected, the camera would stop supplying power to the storage device controller 40 (col. 5, lines 36-57); therefore the supplying of power to the storage device occurs when the camera is turned on); (b) recognizing installation of the storage device after the power is fed to the storage device (Fig. 6: step S12); (c) cutting off the power supplied to the storage device if the storage device is not installed (As shown in step S12, if the storage device is not connected, the camera would stop supplying power to the storage device controller 40 (col. 5, lines 36-57)); (d) transmitting data from a main body of the digital camera to the storage device if the storage device is installed (As taught in col. 3, line 43 – col. 4, line 15, Hatakeyama teaches storing the images captured by the camera upon operation of the shutter button. Transmitting data from a main body of the digital camera to the storage device if the storage device is installed is inherently in Hatakeyama, since the storage device has to be present in the camera in order to store image data.) (Col. 3, line 43 – col. 4, line 15; col. 5, line 33 – col. 6, line 53).

Hatakeyama does not explicitly disclose that the storage device is a USB drive and cutting off the power supplied to the storage when transmission of the data is completed.

However, the use of USB drives as a storage device for digital cameras is well known in the art as taught by Schriefer. Schriefer teaches a USB memory device (Fig. 3B: 305) comprising and adapter (Fig. 3B: 215 and fig. 4A: 215) that allows the USB memory device to be rotated in both the Y-Z planes so the USB can be in close

proximity to the host device such as a camera (See page 3, ¶ 0030) (Page 2, ¶ 0022-0024; page 3, ¶ 0030).

Therefore, taking the combined teaching Hatakeyama in view of Schriefer as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of delivering power to a storage device in Hatakeyama by using a USB drive as a storage medium and to have the USB plug is rotatable to be parallel and/or perpendicular to a lengthwise direction of the USB drive. The motivation to do so would have been to use a storage device that can be connected to different processing systems and be easily recognized for it's Plug-and-Play function in order to improve the transfer of image data between the camera and a computer or another external storage device; and to have the USB drive in close proximity to the digital camera as suggested by Schriefer (Page 2, ¶ 0022-0024).

The combined teaching of Hatakeyama in view of Schriefer fails to teach cutting off the power supplied to the storage when transmission of the data is completed.

However, the concept of cutting off the power supplied to a storage device when transmission of data is completed is notoriously well known in the art as taught by Sakamoto. Sakamoto teaches a digital broadcast receiving device (See fig. 3) having connected a smart card (Fig. 3: 117) to record video data being watched for later use, wherein when the digital broadcast receiving device finish transferring data to the smart card, the processor (Fig. 3: 106) would turn off the power supply of the smart card with the purpose of obtaining low power consumption (Col. 4, lines 54-60; col. 5, lines 1-30; col. 8, lines 40-54).

While it may not be explicitly stated in the references above that the functionality of an electronic device such as a digital broadcast receiving device may be realized by a camera, it is well known to a skilled artisan that a digital broadcast receiving device and a camera are in the same field of endeavor as they are both microcontroller/microprocessor controlled devices for processing data, such as imaging, image processing, and/or image manipulation. Even if the camera and the digital broadcast receiving device are not in the same field of endeavor, which the examiner does not concede, the camera and the digital broadcast receiving device are reasonably pertinent to solving the problem of power conservation and would have commended themselves to an artisan addressing such a problem. In re Clay, 966 F.2d 656, 658, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992).

Therefore, taking the combined teaching of Hatakeyama in view of Schriefer and further in view of Sakamoto as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hatakeyama and Schriefer by cutting off the power supplied to the storage when transmission of the data is completed. The motivation to do so would have been to reduce the power consumption of the digital camera as suggested by Sakamoto (col. 5, lines 1-30; col. 8, lines 40-54).

Regarding claim 6, the combined teaching of Hatakeyama in view of Schriefer and further in view of Sakamoto as discussed and analyzed in claim 5 teaches that the steps (a), (b), (c), (d), and (e) are performed in sequential order. As discussed in claim 5, steps (a), (b), (c) and (d) are performed sequentially as taught by Hatakeyama in view of Schriefer. Although step (e) is taught in a different reference (Sakamoto), one of

ordinary skill in the art would find obvious to perform said step after steps a-d since as suggested in Sakamoto the camera would cut the power after transmitting the image data to the USB drive. Therefore, grounds for rejecting claim 5 apply here.

Regarding claim 7, the combined teaching of Hatakeyama in view of Schriefer and further in view of Sakamoto teaches the same as in claim 5.

Regarding claim 8, limitations have been discussed and analyzed in claim 5.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernandez whose telephone number is (571) 272-7311. The examiner can normally be reached on 8:30 A.M. to 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571) 272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nelson D. Hernandez
Examiner
Art Unit 2622

NDHH
March 15, 2007

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